

Art Unit: 1625

**DETAILED ACTION*****Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/25/10 has been entered.

Claims pending 1-21, 23-25 and newly added claims 26-29.

Claims 1-13 and 19-21 were withdrawn.

Claims under examination are 14-18, 23-25.

The elected group is

Elected group is Va. As given by,

Wherein, claims 23-25, 14-18 drawn to compounds and composition wherein: A<sup>1</sup> is a benzene, pyridine, pyrimidine or a pyrazine and R<sup>6</sup> and R<sup>7</sup> do not form a ring and R<sup>2</sup>, R<sup>3</sup>, R<sup>6</sup> and R<sup>7</sup> are each independently C<sub>1-8</sub> alkyl, C<sub>2-8</sub> alkenyl, C<sub>2-8</sub> alkynyl, a hydroxyl, a C<sub>1-8</sub> alkoxy, mercapto, C<sub>1-8</sub> alkythio, imino, NR<sub>10</sub>NR<sub>11</sub>, carboxyl, C<sub>1-6</sub> alkoxy carbonyl, nitril, cyano, a halogen atom, cyano, acyl, formyl or tri(C<sub>1-6</sub>alkyl)silyl. (Formula 1, 2 and not 1,3,4 which requires both R<sup>3</sup>R<sup>4</sup> and R<sup>6</sup>R<sup>7</sup> to form a ring.)

***New claims 26-29 have been rejoined at this time.***

Response to the arguments.

The applicants state that now the compounds are fully enabled.

Art Unit: 1625

The examiner drops the rejection with respect to how to make the compounds, how ever with respect to how to use the compounds the rejection still stands. Applicants pharmaceutical compositions claims 15-18 still have a preamble "therapeutic agent for mitochondrial benzodiazepine receptor mediated disease"

"wherein the mitochondrial benzodiazepine receptor mediated disease is a disease caused by stress."

"wherein the disease caused by stress is a central nervous system disease caused by stress, a respiratory system disease caused by stress and/or a digestive system disease caused by stress."

"wherein the central nervous system disease caused by stress is anxiety-related disease, sleep disorder, depression and/or epilepsy; a respiratory system disease caused by stress is asthma; or the digestive system disease caused by stress is irritable bowel syndrome."

Even though the preamble does not give the compounds patentable weight with respect to art, they have to be enabled in the specification.

Applicants specification does not have any data to indicate that the compounds do treat all the above disorders. The only data given is the affinity to MBR (mitochondrial benzodiazepine receptor) and for anti stress (psychological stress) that too for only example 17 which is wherein B is an alkyl or a phenyl.

All the various disorders and all the therapeutic effects are not enabled.

The ODP provisional rejection over 11/722623 also still stands as the claims are still not allowable and no TD has been filed.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Art Unit: 1625

Claims 15-18, 26-29 rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for having an affinity to MBR and treating psychological stress, does not reasonably provide enablement for treating any disorder “wherein the mitochondrial benzodiazepine receptor mediated disease is a disease caused by stress. ”

“wherein the disease caused by stress is a central nervous system disease caused by stress, a respiratory system disease caused by stress and/or a digestive system disease caused by stress. “

“wherein the central nervous system disease caused by stress is anxiety-related disease, sleep disorder, depression and/or epilepsy; a respiratory system disease caused by stress is asthma; or the digestive system disease caused by stress is irritable bowel syndrome. “.. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988).

**1) The breadth of the claims:** The instant claims encompass many compounds and they are used to treat any MBR mediated disorder.

**2) The nature of the invention:** The invention is complex small molecule with various substituents and are similar to intermediates found in the art.

**3) The state of the prior art:** Tadalafil is a PDE inhibitor.

Applicants compounds are similar to the intermediates in the process of making Tadalafil.

**4) The level of one of ordinary skill:** The ordinary artisan is highly skilled.

**5) The level of predictability in the art:** It is unknown what the level of predictability is in the art since there are no working examples either in the specification or in the prior art of compounds doing similar activity.

**6) The amount of direction provided by the inventor:** The inventor provides very little direction in the instant specification. Only compound 17 has been assayed for MBR affinity and for psychological stress.

**7) The existence of working examples:** The instant specification does not have any working examples. None of the examples have been tested for treating all the various diseases or disorders.

Art Unit: 1625

**8) The quantity of experimentation needed to make or use the invention based on the content of the disclosure:** Since there are no working examples, the amount of experimentation is very high and burdensome.

Taking the above eight factors into consideration, it is not seen where the instant specification enables the ordinary artisan to make and/or use the instantly claimed invention.

The instantly claimed compounds are not structurally similar to known compounds having the same activity and their pharmacological properties can not be predicted from their chemical structure, thus a disclosure that they possess a particular activity is not enough. Thus the specifications fail to provide sufficient support of use of the compounds of the claim for the treatment of all MBR disorders. As a result necessitating one of ordinary skill to perform an exhaustive search for which compounds of the claims can treat all disorders in order to practice the claimed invention.

### ***Conclusion***

Claims 15-18, 26-29 are rejected.

Claims 23-25, and 14 are found to be allowable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rita J. Desai whose telephone number is 571-272-0684.

The examiner can normally be reached on Monday - Friday, flex time..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres can be reached on 571-272-0867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rita J. Desai/  
Primary Examiner, Art Unit 1625

April 6, 2010.